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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,315	03/10/2004	Daniel ManHung Wong	OR03-15501	1742

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ORACLE INTERNATIONAL CORPORATION
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DAVIS, CA 95618-7759

EXAMINER

RAAB, CHRISTOPHER J

ART UNIT	PAPER NUMBER
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2166

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07/26/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/800,315	WONG, DANIEL MANHUNG	
	Examiner	Art Unit	
	Christopher J. Raab	2166	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5,7,8,10-12,14,15,17-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5,7,8,10-12,14,15,17-19 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

01. This action is in response to Applicant's amendment filed on **05/03/07**. **Claims 1, 3 – 5, 7 – 8, 10 – 12, 14 – 15, 17 – 19, and 21** are pending in the present application.

This action is made FINAL, as necessitated by amendment.

Claim Rejections - 35 USC § 103

02. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

03. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

04. **Claims 1, 3 – 5, 7 – 8, 10 – 12, 14 – 15, 17 – 19, and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Chaudhuri et al. (US Patent 7,194,451)**, hereinafter 'Chaudhuri', in view of **Chidlovskii (US Patent 6,347,314)**.

Consider **claim 1**, Chaudhuri discloses a method for using query signatures in a database, comprising:

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monitoring a system that receives queries (read as receiving a query at the database) (column 2 lines 26 – 54);

generating a query signature, which is defined as a query with the same structure, but different constants (read as parsing the query at the database to determine a signature for the query, wherein the signature specifies a structure based on operations for the query and is independent of the value of the literals in the query) (column 2 lines 46 – 54, column 7 line 40 – column 8 line 2) and that SQL can be used for the queries (read as the signature is constructed from structured query language (SQL) keywords of the query) (column 1 lines 31 – 38);

comparing query signatures to see if it matches an acceptable query (read as determining if the signature is located in the signature cache, which contains signatures for valid queries) (column 7 line 40 – column 8 line 2);

and being able to monitor the health of the system (read as triggering a mismatch alert) (column 2 lines 4 – 22).

However, Chaudhuri does not specifically disclose creating the cache to be used for query signature matchup.

In the same field of endeavor, Chidlovskii discloses creating a cache, such that each region includes a signature, that can be formed by processing queries (read as initializing a signature cache, wherein initializing the signature cache involves trapping database queries in a controlled environment, parsing the database queries to produce a set of valid signatures, and storing the valid signatures in the signature cache) (column 1 line 50 – column 2 line 2, column 2 lines 41 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the signature caching technique taught by Chidlovskii into the query management technique taught by Chaudhuri for the purpose of allowing a cache of acceptable signatures to be created to be used for further processing.

Consider **claims 3 – 5**, and **as applied to claim 1 above**, Chaudhuri discloses a method such that an error in the system can send an alert to a DBA by email or pager or by logging the problem, and the system can either be halted or continue (read as the mismatch alert throws an error, the mismatch alert is sent to a database administrator and the query is processed, the mismatch alert is sent to a requesting application, thereby allowing the requesting application to take action) (column 2 lines 4 – 22).

Consider **claim 7**, and **as applied to claim 1 above**, Chidlovskii discloses a method such that a valid query can be added to the signature cache (read as if the signature generates a mismatch alert and if the query is a valid query, the method further comprises allowing a database administrator to add the signature to the signature cache) (column 9 lines 14 – 26).

Consider **claim 8**, Chaudhuri discloses a computer-readable storage medium for using query signatures in a database, comprising:

monitoring a system that receives queries (read as receiving a query at the database) (column 2 lines 26 – 54);

generating a query signature, which is defined as a query with the same structure, but different constants (read as parsing the query at the database to

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determine a signature for the query, wherein the signature specifies a structure based on operations for the query and is independent of the value of the literals in the query) (column 2 lines 46 – 54, column 7 line 40 – column 8 line 2) and that SQL can be used for the queries (read as the signature is constructed from structured query language (SQL) keywords of the query) (column 1 lines 31 – 38);

comparing query signatures to see if it matches an acceptable query (read as determining if the signature is located in the signature cache, which contains signatures for valid queries) (column 7 line 40 – column 8 line 2);

and being able to monitor the health of the system (read as triggering a mismatch alert) (column 2 lines 4 – 22).

However, Chaudhuri does not specifically disclose creating the cache to be used for query signature matchup.

In the same field of endeavor, Chidlovskii discloses creating a cache, such that each region includes a signature, that can be formed by processing queries (read as initializing a signature cache, wherein initializing the signature cache involves trapping database queries in a controlled environment, parsing the database queries to produce a set of valid signatures, and storing the valid signatures in the signature cache) (column 1 line 50 – column 2 line 2, column 2 lines 41 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the signature caching technique taught by Chidlovskii into the query management technique taught by Chaudhuri for the purpose

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of allowing a cache of acceptable signatures to be created to be used for further processing.

Consider **claims 10 – 12**, and **as applied to claim 8 above**, Chaudhuri discloses a computer-readable storage medium such that an error in the system can send an alert to a DBA by email or pager or by logging the problem, and the system can either be halted or continue (read as the mismatch alert throws an error, the mismatch alert is sent to a database administrator and the query is processed, the mismatch alert is sent to a requesting application, thereby allowing the requesting application to take action) (column 2 lines 4 – 22).

Consider **claim 14**, and **as applied to claim 8 above**, Chidlovskii discloses a computer-readable storage medium such that a valid query can be added to the signature cache (read as if the signature generates a mismatch alert and if the query is a valid query, the method further comprises allowing a database administrator to add the signature to the signature cache) (column 9 lines 14 – 26).

Consider **claim 15**, Chaudhuri discloses a apparatus for using query signatures in a database, comprising:

monitoring a system that receives queries (read as receiving a query at the database) (column 2 lines 26 – 54);

generating a query signature, which is defined as a query with the same structure, but different constants (read as parsing the query at the database to determine a signature for the query, wherein the signature specifies a structure based on operations for the query and is independent of the value of the literals in the query)

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(column 2 lines 46 – 54, column 7 line 40 – column 8 line 2) and that SQL can be used for the queries (read as the signature is constructed from structured query language (SQL) keywords of the query) (column 1 lines 31 – 38);

comparing query signatures to see if it matches an acceptable query (read as determining if the signature is located in the signature cache, which contains signatures for valid queries) (column 7 line 40 – column 8 line 2);

and being able to monitor the health of the system (read as triggering a mismatch alert) (column 2 lines 4 – 22).

However, Chaudhuri does not specifically disclose creating the cache to be used for query signature matchup.

In the same field of endeavor, Chidlovskii discloses creating a cache, such that each region includes a signature, that can be formed by processing queries (read as initializing a signature cache, wherein initializing the signature cache involves trapping database queries in a controlled environment, parsing the database queries to produce a set of valid signatures, and storing the valid signatures in the signature cache) (column 1 line 50 – column 2 line 2, column 2 lines 41 – 43).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the signature caching technique taught by Chidlovskii into the query management technique taught by Chaudhuri for the purpose of allowing a cache of acceptable signatures to be created to be used for further processing.

Consider **claims 17 - 19**, and **as applied to claim 15 above**, Chaudhuri discloses a apparatus such that an error in the system can send an alert to a DBA by email or pager or by logging the problem, and the system can either be halted or continue (read as the mismatch alert throws an error, the mismatch alert is sent to a database administrator and the query is processed, the mismatch alert is sent to a requesting application, thereby allowing the requesting application to take action) (column 2 lines 4 – 22).

Consider **claim 21**, and **as applied to claim 15 above**, Chidlovskii discloses a apparatus such that a valid query can be added to the signature cache (read as if the signature generates a mismatch alert and if the query is a valid query, the method further comprises allowing a database administrator to add the signature to the signature cache) (column 9 lines 14 – 26).

Response to Arguments

05. Applicant's arguments with respect to claims 1, 3 – 5, 7 – 8, 10 – 12, 14 – 15, 17 – 19, and 21 have been considered, but are moot in view of the new ground(s) of rejection.

Applicant argues that the claims, as amended overcome the 35 U.S.C. § 101 rejections since they now have a tangible result. Examiner agrees and has withdrawn the rejection(s).

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Applicant argues that the claims, as amended overcome the 35 U.S.C. § 112 rejections since they now longer lack antecedent basis. Examiner agrees and has withdrawn the rejection(s).

Conclusion

06. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

07. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

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Hand-delivered responses should be brought to

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

08. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Christopher Raab whose telephone number is (571) 270-1090. The Examiner can normally be reached on Monday-Friday from 8:30am to 6:00pm.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Hosain Alam can be reached on (571) 272-3978. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) or 703-305-3028.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.

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Christopher Raab
C.R./cr

KBP

July 13, 2007

Hosain Alam

HOSAIN ALAM
SUPERVISORY PATENT EXAMINER